

WHAT IS CLAIMED IS:

1. A diagnostic method for predicting the recurrence of a tumor or cancer in a mammal comprising:
 - (a) contacting a mammalian tissue sample suspected of being tumorigenic or cancerous with a Survivin-specific ligand comprising a first label, and a pro-apoptosis factor (PAF)-specific ligand comprising a second label under conditions effective to hybridize protein present in the tissue sample to the ligands so as to yield a first population of protein hybridized to the Survivin-specific ligand and a second population of protein hybridized to the PAF-specific ligand;
 - (b) quantifying the first and second populations of labeled protein to determine an amount of Survivin and an amount of PAF present in the sample; and
 - (c) calculating the ratio of the amount of Survivin and the amount of PAF; wherein a Survivin:PAF ratio of more than about 1.5 is predictive that the tumor will recur.
2. The method of claim 1, wherein the Survivin:PAF ratio of more than about 1.6 is predictive that the tumor will recur.
3. The method of claim 1, wherein the Survivin:PAF ratio of more than about 2.0 is predictive that the tumor will recur.
4. The method of claim 1, wherein the PAF is Fas, BID, p53, DR4, DR5, TNF-R, or Caspase 8.
5. The method of claim 1, wherein the PAF is Caspase 8.
6. The method of claim 1, wherein the PAF is Fas.

7. The method of claim 1 wherein the physiological sample is a tissue sample.
8. The method of claim 7, wherein the tissue sample is a tissue-lysate protein sample.
9. The method of claim 7, wherein the tissue is from a solid tumor.
10. The method of claim 9, wherein the solid tumor is a childhood tumor.
11. The method of claim 10, wherein the childhood tumor is a Neuroblastoma, Pediatric renal tumor, Hepatoblastoma, Rhabdomyosarcoma, an undifferentiated sarcoma, a germ cell tumor, or an endocrine tumor.
12. The method of claim 9, wherein the solid tumor is an adult tumor.
13. The method of claim 12, wherein the adult tumor is a tumors of the nervous system, of the gastrointestinal or urogenital tract, or a sarcoma.
14. The method of claim 1, wherein the physiological sample is a fluid.
15. The method of claim 14, wherein the fluid is whole blood or blood serum.
16. The method of claim 1, wherein the agent is an antibody.
17. The method of claim 16, wherein the antibody is a member of a population of polyclonal antibodies.
18. The method of claim 16, wherein the antibody is a monoclonal antibody.

19. A diagnostic kit for predicting recurrence of tumor or cancer in a mammal, comprising packaging material, containing, separately packaged:
 - (a) a Survivin-specific ligand;
 - (b) a PAF-specific ligand; and
 - (c) instructions means directing the use of (a) and (b) in accord with the method of claim 1.

20. A diagnostic kit for predicting recurrence of tumor or cancer in a mammal, comprising packaging material, containing, separately packaged:
 - (a) a Survivin-specific ligand;
 - (b) a PAF-specific ligand; and
 - (c) instructions means directing the use of (a) and (b) in accord with the method of claim 1.

21. A diagnostic method for predicting the recurrence of a tumor or cancer in a human comprising:
 - (a) contacting RNA from a human physiological sample suspected of being tumorigenic or cancerous with a Survivin-specific oligonucleotide comprising a first label, and a pro-apoptosis factor (PAF)-specific oligonucleotide comprising a second label under conditions effective to hybridize the RNA to the oligonucleotides so as to yield a first population of RNA labeled with the Survivin-specific oligonucleotide and a second population of RNA labeled with the PAF-specific oligonucleotide;
 - (b) quantifying the first and second populations of labeled RNA to determine an amount of Survivin RNA and an amount of PAF RNA present in the sample; and
 - (c) calculating the ratio of the amount of Survivin RNA and the amount of PAF RNA, wherein a Survivin:PAF ratio of more than about 1.5 is predictive that the tumor will recur, and wherein the PAF is Caspase 8.